



7, Autogennaya Str., Kharkov, 61099, Ukraine. Phone: (+38-057) 728-1244, 728-1241. Fax: (+38-057) 728-1243, (+38-0572) 946-830 E-mail: market@vuzhcable.com.ua

# ПвПГнг-FRHF 4x50-1 ТУ У 31.3-00214534-069:2011



Fire resistant power cables with copper conductors, XLPE-insulated, with polymer compound outer sheath, flame-retardant, halogen-free

Cables are used for laying:

• power supply cable lines of NPP electric equipment, wiring in office premises , which are computerized and intelligent, in kindergartens, schools, hospitals and for cable lines of spectating complexes and sport structures

• power supply cable lines of NPP safety system equipment, circuits wiring of fire safety systems (fire alarm circuits, power supply of fire-fighting pumps, lightning of emergency exits and evacuation routes, smoke exhaust and blowing ventilation systems, evacuation elevators); for wiring in hospital surgical wings, emergency and equipment (current collectors) power supply circuits, operating in a fire emergency

Manufacturing of cable with multiwire conductors is possible Manufacturing of extruded fire-resistant barrier is possible

Fire safety code in accordance with ДСТУ 4809:2007: ПБ123122580

Products of this mark meet the requirements:

single wire cable flame retardance

bunched cable flame retardance category A

• toxicity class Tk3 of the combustion products of nonmetallic elements (toxicity index over 120 g/m<sup>3</sup>)

• class  $\[mu]T\kappa 1$  on smoke-forming ability by smouldering of non-metallic elements (coefficient of smoke formation from 50 to 500 m<sup>2</sup>/kg)

• class ДΠκ2 on smoke-forming ability by combustion (minimum luminous flux more than 60 %)

• corrosive class Kk2 of combustion products of non-metallic elements (the number of halogen hydrides less than 150 mg/g, pH more than 4.3, specific conductivity less than 10  $\mu$ S/mm)

- flame-resistant class Ex90 under fire conditions at standard temperature conditions ДСТУ Б В.1.1-4
- flame-resistant class FE180 under fire conditions with a temperature not less than 750  $^\circ \! C$





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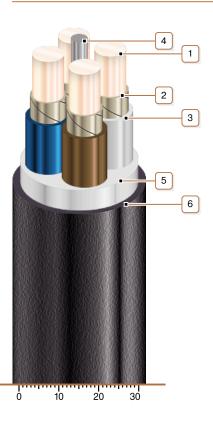
## **TECHNICAL SPECIFICATIONS**

Rated voltage	kV	1
Number and rated area of conductors	mm²	4 x 50
Phase insulation thikness	mm	1
Permissible continious current rating (AC of industrial frequen	су) *	
• by aerial laying	А	194
Maximum permissible conductor temperature		
Continious	°C	+90
in emergency operation	°C	+130
at short circuit	°C	+250
Operating temperature range	°C	-50 +50
Minimum bending radius by laying	mm	255
Rated outer diameter of the cable (for reference) **	mm	34
Cable weight (approximate)	kg/km	2520
Rated factory cable length and gross weight of the delivery	m, t	# 14: 540 • 1.5
on the drums ***		# 16a: 870 • 2.5
		# 18: 1000 • 3.0

Notes:

When ordering it is neccesary to agree the factory length of the product with the manufacturer

\* Long permissible current loads are calculated during operation in four-wire networks with load in all the conductors for the following conditions: air temperature plus 25 °C, soil temperature plus 15 °C, thermal resistivity of soil 1.2 °K  $\cdot$  m/W, laying depth in the soil 0.7 m \*\* The external diameter may differ from the rated up to ± 10 %



## CONSTRUCTION

1. Copper conductor

2. Fire-resistant barrier

Note: Manufacturing of extruded fire-resistant barrier is possible

- 3. XLPE insulation
- 4. PVC compound bundle
- 5. Halogen-free polymer compound inner sheath
- 6. Polymer compound outer sheath:flame-retardant and halogen-free

Note: Conductor twisting is not illustrated